

## Proposed Work Plan/Meeting Schedule – Buildings, Infrastructure & Housing (BIH) 2024 Updated 4/25/24

### *BIH– Overview of the issues and task*

The Buildings, Infrastructure, and Housing Working Group will evaluate and recommend short- and long-term mitigation strategies to reduce gross and net annual greenhouse gas emissions from buildings, infrastructure, and housing, as well as evaluate and recommend short- and long-term strategies and actions for adaptation and resiliency to climate change.

As part of the update to Maine’s Climate Action Plan, the BIH WG will develop recommendations to help Maine continue its progress in weatherization and heating system efficiency, advance energy efficient building codes, and manage the impact of building loads on the grid. In particular, the BIH WG will focus on recommendations in key sectors: low to moderate income customers, affordable housing, and public buildings. The BIH WG will work with other WGs on issues of demand management and workforce capacity.

The BIH WG will use *Maine Won’t Wait* as a starting place for this work and strive for a limited number of recommended measurable strategies and actions.

### *Structuring a set of six priority conversations:*

1. Filling the gap in funding and financing for carbon reduction projects in buildings
  - Review available funding and financing mechanisms and potential new mechanisms for:
    - Residential, particularly low and moderate income (LMI) and the oldest and poorest quality housing stock
    - Deeper energy retrofits
    - Schools, nonprofit, State, and other public sector buildings
2. Advancing clean, resilient, energy efficient **new** buildings
  - Building code adoption, trainings, and implementation
  - Reducing the amount of embodied carbon in new buildings by addressing market barriers to the use of climate-friendly building products
  - Enhancing resilience through siting, systems, materials, and construction (*in collaboration with the Community Resilience Working Group*)
  - Continue improving energy efficiency in affordable and moderate-income housing
  - Explore ways to leverage new federal standards and voluntary certifications to go “above and beyond” Maine building codes
    - Exploring zero-emission building equipment standards

3. Managing the impact of building loads on the grid (*in collaboration with the Energy and Transportation Working Groups*), including:
  - Advances in technology that can help manage building loads
  - Incentive programs that encourage the use of flexible loads (residential and commercial)
  - Barriers to implementing effective demand management
  - Supporting the use of distributed energy resources such as renewable energy and battery storage
4. Reducing emissions from industrial sources
  - Process emissions
  - Energy emissions
5. Continuing progress of weatherization and heating systems
  - Revisit targets for heat pumps and weatherization in light of recent progress and new streams of funding
  - Addressing health and safety issues related to weatherizing buildings
6. Building a clean energy workforce and bolstering public education (with other working groups)

The BIH WG will work through these priorities in a series of full-group, in-person public meetings. WG members are invited to help prepare key conversations and distill those conversations into draft recommendations for consideration by the full WG. Small volunteer groups are forming [here](#). Throughout this work, the BIH WG will continue to work with GOPIF and the University of Maine Mitchell Center to identify priority populations that the WG needs to hear from, and to integrate findings from outreach to these priority populations into the final BIH recommendations.

*Summary Meeting Schedule*

Meeting Date	Topic
Friday 1/19/2024(9a m-1pm)	In person (Augusta): <b>Demand Management Workshop</b> (with Energy and Transportation WGs)
Monday 1/22/2024 (2pm-5pm)	In person (EMT office, Augusta): <b>Outlining priority conversations + Filling financing gaps</b> <ul style="list-style-type: none"> <li>● Existing programs and stakeholder processes related to buildings</li> <li>● Review draft priority population outreach plan with Mitchell Center</li> <li>● Filling the gaps in financing for energy efficiency projects</li> </ul>
Monday 2/12/2024 (2pm-5pm)	In person (Portland): <b>Advancing clean, resilient, energy efficient new buildings</b> <ul style="list-style-type: none"> <li>● Field trip to affordable housing/passive house and/or mass timber project (Porter Station)</li> </ul>

	<ul style="list-style-type: none"> <li>• Building code adoption, trainings, and implementation</li> <li>• Continue improving energy efficiency in affordable and moderate-income housing</li> <li>• Explore ways to leverage new federal standards and voluntary certifications to go “above and beyond” Maine building codes</li> </ul>
Friday 3/8/2024 (10am-12pm)	<p><b>Embodied Carbon and Resilience in Maine Buildings</b></p> <ul style="list-style-type: none"> <li>• Reducing the amount of embodied carbon in new buildings by addressing market barriers to the use of climate-friendly building products, as well as resilience considerations for new buildings.</li> </ul>
Wednesday 3/20/2024 (2pm-5pm)	<p>In person (Bangor/Orono):</p> <p><b>Continuing progress on weatherization and heating</b></p> <ul style="list-style-type: none"> <li>• Reviewing and updating targets related to heating and weatherization</li> <li>• Reviewing available funding mechanisms for carbon reduction in buildings</li> <li>• Sharing small group research and recommendations</li> </ul>
Friday 3/29/2024 (9am-11am)	<p>Virtual via Zoom:</p> <p><b>Review draft recommendations related to electricity demand management (with Energy and Transportation WGs)</b></p>
Friday 4/12/2024 (11am-12pm)	<p>Virtual via Zoom:</p> <p><b>Review policy options for continuing the progress on weatherization and heating systems (follow-up conversation from 3/20 meeting)</b></p>
Friday 4/26/2024 (9am-12pm)	<p>Virtual via Zoom:</p> <p><b>Review &amp; refine draft recommendations, actions, and targets</b></p> <ul style="list-style-type: none"> <li>• Review of all emerging policy recommendations</li> <li>• Discuss new policy recommendation regarding heating oil tanks</li> <li>• Discuss the guidance this WG will give regarding heat pumps and weatherization targets</li> </ul>
Tuesday 5/7/2024 (10am-12pm)	<p>Virtual via Zoom:</p> <p><b>Review &amp; refine draft recommendations, actions, and targets</b></p>
Tuesday 5/21/2024 (1pm-4pm)	<p>In-person (Augusta):</p> <p><b>Finalize recommendations, actions, and targets</b></p> <ul style="list-style-type: none"> <li>• Review and integrate preliminary findings from Mitchell Center engagement with priority populations</li> </ul>

Tuesday 6/18/2024 (9am-5pm)	Maine Climate Council Quarterly Meeting – Augusta Civic Center <b>Deliver final recommendations to the Maine Climate Council</b>
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**Shared Definitions**

Resilience: *The ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse climate events (flooding, winds, high temps, etc.)*

Code/stretch code:

- Maine Uniform Building and Energy Code (MUBEC): *A set of standards that governs the construction of new buildings in Maine, and includes, as of 2024, the 2015 International Residential Code (IRC), the 2015 International Building Code (IBC), 2015 International Existing Building Code (IEBC), 2015 International Energy Conservation Code (IECC), and the 2015 International Mechanical Code (IMC) as well as the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standards 62.1 - 2016 (Ventilation for Acceptable Indoor Air Quality), 62.2 - 2016 (Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings), 90.1 - 2016 (Energy Standard for Buildings except Low-Rise Residential Buildings) editions without addenda, and E-1465-2008, Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings.*
- MUBEC Stretch Code: *An alternative building energy code adopted and maintained by the board as an appendix to the MUBEC, that is more stringent from the perspective of energy efficiency, carbon reductions, and resilience than the currently adopted edition of the Energy Code, which a municipality may elect to substitute, in its entirety, for the current edition of the Energy Code, 10 M.R.S. §9722, et seq.*

Embodied carbon: *Greenhouse gas (GHG) emissions from building materials. Includes extraction of raw materials, transport, manufacturing the product, construction, demolition, waste, end of life (essentially it is all the carbon that is not operational).*

Operational carbon: *GHG emissions from energy use in buildings*